

ProForce Array 500 SC Herbicide



Selective grass weed control in turf & non-crop situations

Product Overview

ProForce Array 500 SC Herbicide is a pre and post-emergent herbicide containing 500g/L of the active ingredient Ethofumesate.

It is registered for the pre-emergent control of Wintergrass in a variety of turfgrasses including Bentgrass, Kentucky Bluegrass, Kikuyu, Queensland Blue Couch and Ryegrass.

ProForce Array 500 SC is also registered for the control of a range of grass and broadleaf weed species in non-crop situations including fencelines and tree plantations.

Key Features

- > Pre and Post-emergent activity. Ultimate application versatility. Array can be used prior to, at or after, following weed germination.
- > Excellent safety on cool season turfgrasses as well as Kikuyu and Qld Blue Couch. Very safe to key turfgrass species that Array is labelled to be used on.
- > Unique mode of action Group. Excellent rotational tool from a resistance management perspective.
- > Flexibility around re-seeding of cool season grasses. Excellent safety around overseeding cool season grasses, particularly Ryegrass.
- > Also registered for use in non-crop situations. Can be a useful rotational option for fenceline management or tree plantations as specified on the label.
- > Has activity on difficult to control weeds including Barley Grass and Brome Grass. Provides versatility on a range of weed species.



Array 500 SC Herbicide – Use Rates & Label Recommendations

SITUATION	WEEDS CONTROLLED	STATES	RATE/ha	WHP	CRITICAL COMMENTS
Established turf; bent grasses (including brown top bent), Kentucky blue-grass, kikuyu, Queensland blue couch, ryegrass	Winter Grass (<i>Poa annua</i>)	NSW, ACT, Vic, Tas, SA, WA only	800 mL in 400 to 600 L water/ha OR 8 mL in 4 to 6 L water per 100 m ²	DO NOT GRAZE OR FEED TO ANIMALS	Apply first application one month before main Autumn germination (ie. apply in February to April but up to May in northern NSW). Repeat at monthly intervals for 3 to 4 months. In dry conditions, watering will improve residual action. After spraying, wait at least 12 hours before watering. Avoid flooding or ponding of treated turf. Preferably mow immediately before spraying or leave as long as possible after spraying before next mowing (1 to 2 weeks if practicable). Water volume is not critical but avoid excessive overlapping and dripping from spray equipment onto turf. DO NOT add other herbicides or surfactants to this product for this use unless specifically recommended.
Ryegrass pasture and seed crops also, non-crop areas (stock camps, tree plantations, fence lines)	Barley Grass, Cleavers, emerged Brome Grass, seedling Chickweed, Shepherd's Purse, Storksbill, Winter Grass	Vic, Tas only	3 L/ha	7 days	Apply (April-July) to moist soil after main germination of Barley Grass. DO NOT apply once Barley Grass reaches green flowerhead stage. DO NOT treat pastures where clover production is important. Use this rate when: 1. Annual rainfall is 250-750 mm. 2. Barley Grass is at very early growth stage (April to May). 3. Pasture has been closely grazed (less than 5 cm high). 4. Soil is low in organic matter (less than 10%). 5. There is a high proportion of ryegrass in pasture.
			4 L/ha		Use this rate when: 1. Annual rainfall exceeds 750 mm. 2. Barley grass is at early vegetative growth stage (April-July). 3. Pasture has been closely grazed (5-10 cm high). 4. Dung accumulations are present.
			300 mL per 100 L water		Spot Treatment: Apply by handgun or knapsack sprayer. Thoroughly wet vegetation.

Mode of Action

GROUP 15 HERBICIDE

Ethofumesate, the active ingredient in ProForce Array 500 SC Herbicide is absorbed by young shoots and roots of susceptible weed species. The post emergence activity of ethofumesate is limited to very young weeds at lower use rates, as ethofumesate is not absorbed by leaves after the plant has produced a mature cuticle. Ethofumesate is translocated within the plant following coleoptile or root absorption but is not translocated out of treated leaves. Ethofumesate is believed to inhibit photosynthesis and respiration within the susceptible weed species.



Turfgrass Selectivity

Perennial ryegrass is considered to be the safest turfgrass to Array (ethofumesate) treatments. Previous research conducted has determined plant safety to ethofumesate in the descending order of tolerance as below:

> Perennial ryegrass > Tall fescue > Creeping bentgrass > Kentucky bluegrass > Wintergrass. (Adams, 1989)

Array is also safe for use on Kikuyu and Qld Blue Couch turf species.

Array is NOT SAFE on Couch and Hybrid Couch turf surfaces.

Soil Residual Activity

Array has been shown not to leach in soils that have an organic matter content greater than 1%. Soil microorganisms are responsible for the degradation of ethofumesate in soils. The soil persistence of ethofumesate is affected by climate, soil type and microbial activity. Under warm, moist conditions and cold, dry conditions the half-life of ethofumesate is 5 and 14 weeks, respectively.